

What is claimed is:

1. A surface with hydrophilic properties,
wherein
5 the surface comprises particles with hydrophilic properties.
2. The surface as claimed in claim 1,
wherein
the particles are hydrophilic silica particles.
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3. The surface as claimed in claim 1 or 2,
wherein
the hydrophilic particles are present in the form of primary particles with an
average particle size of from 1 nm to 20 μm .
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4. The surface as claimed in at least one of claims 1 to 3,
wherein
the hydrophilic particles have been secured to the surface by means of a
carrier.
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5. The surface as claimed in at least one of claims 1 to 3,
wherein
the hydrophilic particles have been anchored in the surface.
- 25 6. A process for producing surfaces with hydrophilic properties,
which comprises
applying particles which have hydrophilic properties to a surface and
securing them there.
- 30 7. The process as claimed in claim 6,
wherein
the hydrophilic particles are applied by applying a suspension which
comprises hydrophilic particles in a solvent, and then are secured by
removing the solvent.
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8. The process as claimed in claim 7,
wherein
the suspension is applied to at least one surface of an article by dipping the

article into the suspension.

9. The process as claimed in claim 7,
wherein

5 the suspension is applied to at least one surface of an article by spraying
the suspension onto the article.

10. The process as claimed in at least one of claims 7 to 9,
wherein

10 the suspension comprises a polymer dissolved in the solvent.

11. The process as claimed in at least one of claims 7 to 10,
wherein

15 the surface of the article is not solvated by the solvent, and after removal of
the solvent the particles adhere, as a coating, to the surface of the article.

12. The process as claimed in claim 11,
wherein

20 the solvent used comprises at least one suitable compound from the group
consisting of alcohols, glycols, ethers, glycol ethers, ketones, amides, nitro
compounds, halogenated hydrocarbons, and mixtures of these, which does
not solvate the surface of the article to be coated.

13. The process as claimed in at least one of claims 7 to 10,
wherein

25 the surface of the article is swelled or solvated by the solvent, and after
removal of the solvent the particles have been anchored in the surface of
the article.

14. The process as claimed in claim 13,
wherein

30 the surface which is solvated by a solvent comprises polymers based on
polycarbonates, on poly(meth)acrylates, on polyamides, on PVC, on
polyethylenes, on polypropylenes, on aliphatic linear or branched
35 polyalkenes, on cyclic polyalkenes, on polystyrenes, on polyesters, on
polyether sulfones, on polyacrylonitrile, or on polyalkylene terephthalates,
or else comprises mixtures or copolymers of these.

15. The process as claimed in claim 13 or 14,
wherein

the solvent used comprises at least one compound selected from the group
consisting of alcohols, glycols, ethers, glycol ethers, ketones, amides, nitro
5 compounds, halogenated hydrocarbons and mixtures of these which is a
suitable solvent for the appropriate surface.

16. The process as claimed in claim 15,
wherein

10 the solvent used comprises at least one compound which is a suitable
solvent for the appropriate surface selected from methanol, ethanol,
propanol, butanol, octanol, cyclohexanol, phenol, kresol, ethylene glycol,
diethylene glycol, dioxane, dioxolane, tetrahydrofuran, monoethylene glycol
ether, diethylene glycol ether, triethylene glycol ether, polyethylene glycol
15 ether, acetone, butanone, cyclohexanone, dimethylformamide, pyridine, N-
methylpyrrolidone, N-methylcaprolactone, acetonitrile, dimethyl sulfoxide,
sulfolane, nitrobenzene, dichloromethane, chloroform, tetrachloromethane,
trichloroethene, tetrachloroethene, 1,2-dichloroethane, and chlorophenol,
and mixtures of these.

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17. The process as claimed in at least one of claims 7 to 16,
wherein

prior to application to the surface, the temperature of the solvent which
comprises the hydrophilic particles is from -30 to 150°C, preferably from
25 25 to 100°C.

18. The process as claimed in claim 6,
which comprises the steps of

- 30 a) applying a curable substance as carrier to a surface,
b) applying hydrophilic particles to the carrier, and
c) securing the particles by curing the carrier.

19. The process as claimed in claim 18,
wherein

35 the carrier is cured by thermal energy and/or by the energy present in the
light.

20. The process as claimed in claim 18 or 19,

wherein

the curable carrier used comprises a lacquer which comprises at least a mixture made from mono- and/or polyunsaturated acrylates and/or methacrylates and/or polyurethanes, or comprises a hot-melt adhesive
5 which comprises at least one compound selected from ethylene-ethyl acrylate copolymers, ethylene-vinyl acetate copolymers, polyamides, polyether sulfones, polyisobutenes, and polyvinyl butyrals.

21. The process as claimed in at least one of the claims 18 to 20,
10 wherein

the carrier comprises hydrophilic particles.

22. The process as claimed in at least one of claims 6 to 21,
wherein
the hydrophilic particles used comprise those whose particle sizes is from
15 1 nm to 20 μm , preferably from 5 nm to 5 μm .

23. The process as claimed in at least one of claims 6 to 21,
wherein
the hydrophilic particles used comprise hydrophilic silicas.
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24. An article which has, on at least one surface, a surface as claimed in
at least one of claims 1 to 5.

25. A cleaning textile which has, on at least one surface, a surface as
25 claimed in at least one of claims 1 to 5.

26. A fiber which has, on at least one surface, a surface as claimed in at
least one of claims 1 to 5.

30 27. A textile which comprises fibers as claimed in claim 26.